DOCUMENT RESUME

ED 230 016 EC 152 583

AUTHOR Walters, Elizabeth; And Others
TITLE Verbal Self-Instruction for the Mentally Retarded: The Missing Link.
PUB DATE Apr 83
NOTE 21p.; Paper presented at the Annual International Convention of The Council for Exceptional Children (61st, Detroit, MI, April 4-8, 1983).
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Attribution Theory; Elementary Secondary Education; *Helplessness; *Locus of Control; *Mental Retardation; *Student Attitudes

ABSTRACT

The paper examines research on locus of control, learned helplessness, and attribution theory, and discusses the implications of the mentally retarded child's attitudes toward his or her successes. Studies are cited linking internal locus of control with achievement, and it is suggested that more attention should be paid to promoting students' internal orientations. Learned helplessness research is reviewed in terms of its effects on learning and the ability to cope with failure. Attribution theory research is explained to reveal that causal attributions are learned, and that students can be taught to make attributions that will help rather than hinder their academic progress. Specific interventions may be more effective when matched with the child's specific attributions. Self control verbal monitoring is advocated as one way to help children who appear unmotivated, who have given up, and/or who have learned helplessness. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED230016

CEC's 61st ANNUAL INTERNATIONAL CONVENTION

April 8, 1983

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

VERBAL SELF-INSTRUCTION FOR THE MENTALLY RETARDED: THE MISSING LINK

Presentors

Elizabeth Walters, Ph.D.
Professor of Education
Southeastern Oklahoma State University
Station A, Durant, OK 74701

Gloria Walters, M. Beh. Studies
Clinic Director - Center for Human Development
Southeastern Oklahoma State University
Box 2674, Station A
Durant, OK 74701

Sondra Bonnington, Ph.D.
Assistant Professor
Department of Education and Psychology
Cameron University
Lawton, OK 73505

EC152583

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Sondra Bonnington
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

VERBAL SELF-INSTRUCTION FOR THE MENTALLY RETARDED: THE MISSING LINK

CIRCULAR ASPECTS OF ATTITUDE ABOUT CONTROL

Sondra Bonnington, Ph.D.

Another aspect of the varying roles verbal self-instruction may play in relation to academic performance is that of the child's attitude towards his or her successes and failures. Research demonstrates that the reasons children give for success and failure seem to effect their later performance (Abramson, Seligman, & Teasdale, 1978; Gilmor, 1978; MacDonald, 1973; Tesiny, Lefkowitz, & Gordon, 1980). Whether performance determines the attitudes the child holds or whether the child's attitude determines the probability of his or her success is a "chicken and egg" cycle which can be interrupted and restructured through the use of verbal self-instruction.

The affective aspects of maximizing academic success have received little attention. For the most part teacher training in special education has focused on methods of remediating handicaps and ways of compensating for disabilities so as to facilitate the learning of academic subjects. Three theories which have special relevance for both handicapped and non-handicapped children are locus of control, learned helplessness, and attribution theory. While the

majority of the research in these areas has been done with an adult population, primarily college stuents, the studies which have involved children have shown similar results.

Locus of Control

One aspect of motivation which appears to be closely tied to achievement is the locus of control concept. Locus of control is one derivative of Rotter's social learning theory (Rotter, 1966). People with an internal locus of control believe their behavior effects or controls the reinforcement they receive. If people believe their behaviors make no difference, that good things as well as bad things happen because of chance or the whims of powerful others, then they are said to have an external locus of control.

Children with an internal locus of control have been found to be able to delay gratification (Shipe, 1971), to persist longer (Dweck & Reppucci, 1973), and to be more creative (DuCette, Wolk, & Friedman, 1972). While the research of performance and achievement relationships to internal locus has been conflicting, a positive relationship between grades and internal locus of control has been established (LaVoie & Adams, 1975).

Research has been done with non-handicapped, mentally retarded, and learning disabled children and adolescents. In the following four studies, normal achievers took credit for

success (i.e. had an internal locus for positive outcomes) whereas handicapped children were significantly less likely to make internal attributions for success. Chan and Keogh (1974) studied third grade normal achievers and educable mentally retarded students matched on mental age. Studies have also been carried out with normal and learning disabled (LD) boys and girls in grades 3 through 6 (Chapman & Boersma, 1979), non-handicapped and LD boys and girls in the fourth grade (Bonnington, 1981), and normal and LD boys in grades 3 and 6 (Hill, 1980).

Shipe (1971) studied two groups of young men, an occupational training school group (institutionalized retardates, mean IQ 64.7) and a vocational school group (mean IQ 72.7). For the institutional group there was a significant correlation between institutional wage level and internal locus of control. There was a significant positive correlation between locus of control and all achievement scores for the vocational school boys.

Lawrence and Winschel (1975) described some of the implications the locus of control concept might have for special education. They contended that

> internality in locus of control must become a conscious goal in the education of handicapped children. This objective is both necessary to normalization and prerequisite to the successful, long term mainstreaming of recently segregated children. If handicapped children are to be educated within regular school programs,

> educators must maximize those intellectual and personal attributes which will facilitate their acceptance by age peers and increase their potential for academic success. (p. 484)

They recommended that, before mainstreaming mildly retarded children, each child should "demonstrate a level of internality (both for success and failure) not less than average for the class to which he would be assigned" (p. 488). This would require regular classroom teachers and special education teachers alike to have the background necessary to utilize the child's locus of control beliefs in order to maximize his progress and to consciously promote the acquisition of internal beliefs. "Praise must be deserved; failure must be possible" (p. 489). Lawrence and Winschel strongly suggest that locus of control is one theory which can and should be meaningfully and successfully translated into educational practice. Chapman and Boersma (1979) concur, noting that

> a link between locus of control and learning would seem logical, given that school achievement requires a degree of effort and persistence in academic tasks and that such behaviors are unlikely to occur if the student sees little relationship between his efforts in learning and the outcomes. (p. 250-251)

MacDonald (1973) stated that "all of the research points to the same conclusion: people are handicapped by external locus of control oritentations" (p. 170). Other researchers have linked external locus of control with learned helplessness (Dweck & Reppucci, 1973) and depression (Tesiny, Lefkowitz, & Gordon, 1980).

Learned Helplessness

People who have "learned helplessness" are those who have learned that there is no connection between their behavior and the negative outcomes they experience. Seligman (1975) explained that when events are uncontrollable people become passive and no longer try to act, unable to perceive that any success could be the result of their behavior. They also become anxious. When the outcome is aversive, learned helplessness may be "followed by depression" (p. 47). Seligman stated that "what is often passed off as retardation or an IQ deficit may be the result of learned helplessness. . . . Intelligence, no matter how high, cannot manifest itself if the child believes that his own actions will have no effect" (p. 154).

In 1978, Abramson, Seligman, and Teasdale presented a reformulation of the learned helplessness hypothesis. This model has three dimensions: stability, generality, and locus of control, and was based on attribution theory. "When a person finds he is helpless, he asks <u>why</u> he is helpless. The causal attribution he makes then determines the generality and chronicity of his helplessness deficits as well as his later self-esteem" (p. 50).

Diener and Dweck (1978) found that their two groups, helpless and mastery-oriented, had significantly different performances following failure. The mastery-oriented

children who attributed failure to a lack of effort used significantly more effective strategies than the helpless children who did not attribute failure to lack of effort. Hill (1980) found that learning disabled (LD) boys did not take credit for success, but the non-LD boys did. The implication that the LD boys did not recognize that their actions were connected to their successes signified one symptom of learned helplessness. Dweck (1976) stated that whether the child makes stable or unstable attributions effects the capability of the child to cope with failure.

Weisz (1979) investigated learned helplessness in educable mentally retarded children and nonretarded children by completely crossing three mental age (MA) levels with three IQ levels and two conditions. The children were given several measures of learned helplessness by a female experimenter three weeks after a male experimenter had administered the learning task. On the response initiation scores there was no significant IQ X MA interaction at the two lower MA levels. Only at the high MA level was the effect of IQ significant. On the children's perceived influence questionnaire "effort attributions for negative outcomes increased with MA"(p. 315). Teachers rated children as less helpless as their MA increased. Weisz suggests that the retarded children (IQ 70) may be "susceptible to helplessness" (p. 311), adding that it was "only the positive situation . . . that yielded

a main effect of IQ and only the positive situation that revealed less response initiation with development" (p. 317).

Attribution Theory

In the process of generating a general theory of motivation, Bernard Weiner (1979) brought together these various theories advanced by a considerable body of research. He revised his earlier attributional model to incorporate these findings. Attribution theorists believe that people seek to put meaning to the things which happen to them by finding causes. Whether these causal attributions are verbalized or not, the kinds of attributions made for success and failure influence subsequent behavior.

Weiner identified three primary dimensions of causality: stability, locus (of causality), and control. The dimension of stability (stable vs. unstable) is primarily linked with expectancy of success, the magnitude of the expectancy shift, and performance intensity. Weiner conceived of the locus dimension as a backward-looking belief. Internal-external locus is linked to esteem-related affects and to persistence. Weiner suggested that the "central self-esteem emotions that facilitate or impede subsequent achievement performance are dimensionally linked" (p. 14) to an internal locus and he stated that is was "time that closer attention was paid to affective life in the classroom" (p. 15).

The control dimension (controllable vs. uncontrollable) is linked to interpersonal judgements such as helping or evaluation, and influences choice. The control dimension also influences sentiments such as liking and sympathy. "Surely a teacher will not particularly like a student who does not try, and failure perceived as due to a lack of effort does not elicit sympathy" (p. 17). Palmer (1983) confirms this, suggesting that the child's performance (e.g. tries or doesn't try) has more effect on a teacher's attitudes than does a particular label. Thus under the umbrella of attribution theory coexist the concepts of internal-external locus and learned helplessness.

In studies of attribution theory with children it has been found that attributions of failure to lack of effort (internal, unstable, controllable) are positively related to persistence (Andrews & Debus, 1978; Nicholls, 1978). Students with low expectancy of success attributed failure to lack of ability (Covington & Beery, 1976; McMahan, 1973). The attribution "I'm dumb" is the worst one a child can make. It causes the greatest loss of self-esteem. Low ability is an internal, stable, uncontrollable attribute. The stability dimension predicts future outcomes. Failure results from stability. The stability dimension is linked to expectancy. Research indicates a causal relationship between learned helplessness and the expectation of bad outcomes.

Yet the literature also demonstrates that these causal attributions are learned. Therefore students who make maladaptive attributions can be taught to make attributions which will facilitate rather than hinder their academic progress. Canino (1981) indicates that

> the literature on intervention suggests that a cognitive-functional approach to remediating the maladaptive attributions of underachieving students offers the best likelihood for success. Though limited, comparative studies between attribution retraining alone, or in conjunction with some type of reinforcement schedule (e.g. partial reinforcement), was superior to reinforcement procedures. Treatment techniques designed to eliminate the negative consequences of failure and to ensure success (e.g., continuous positive reinforcement) were not sufficient to improve a student's performance when confronted with new failure. (p. 480)

Andrews and Debus (1978) attempted to modify cognitive attributions of sixth grade boys "who least frequently attributed failure to lack of effort" (p. 158). Both training groups significantly increased their attributions of effort and scored significantly above the control group in persistence. The success of the treatment in changing the boys' attributions for success and failure to effort is, as the authors suggest, "extremely relevant to all aspects of remedial teaching" (p. 165). Nicholls (1978) noted that "mastery learning appears likely to lead to attribution of failure to lack of effort and, thus, compensating effort" (p. 812). Other researchers (Andrews & Debus, 1978; Dweck, 1975; McMahan, 1973) also recommended the change to effort ascriptions through retraining programs.

It appears that the attributions children give may interact with retraining methods. For example, Bugental, Whalen, and Henker (1977) found that

> children who made relatively high attributions to external causes were significantly more responsive to the reinforcement intervention (method). . . . For these children external, contingent reinforcement may serve to increase environmental consistency and introduce the possibility that they can influence outcomes through their own actions. . . . Introducing regularities or systematic extrinsic reinforcement into the environment of an individual who believes events are random or chaotic may be a productive prelude to self-management training. (p. 881)

In this instance, a specific intervention technique--social reinforcement--was more effective when matched with the child's specific attributions--external, in this case. Children who gave internal attributions did not respond well to the social reinforcement method.

Since the intervention method must be tailored to fit the specific attributions given by a child, it is not surprising that it has been difficult to structure the classroom environment so as to help children who appear unmotivated, who have given up, and/or who have learned helplessness. One very promising technique is self-control verbal monitoring (Bugental et al., 1977).

REFERENCES

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, 1978, 87, 49-74.

Andrews, G. R., & Debus, R. L. Persistence and the causal perception of failure: Modifying cognitive attributions. Journal of Educational Psychology, 1978, 70, 154-166.

Bonnington, S. C. An investigation of the relationships between attributions for success and failure, and academic achievement of fourth grade non-handicapped and learning disabled boys and girls (Doctoral dissertation, Texas Woman's University, 1981). Dissertation Abstracts International, 1982, 42, 3547-A. (University Microfilms No.8201704)

Bugental, D. B., Whalen, C. K., & Henker, B. Causal attributions of hyperactive children and motivational assumptions of two behavior-change approaches: Evidence for an interactionist position. Child Development, 1977, 48, 874-884.

Canino, F. J. Learned-helplessness theory: Inplications for research in learning disabilities. Journal of Special Education, 1981, 15, 471-484.

Chan, K. S., & Keogh, B. K. Interpretation of task interruption and feelings of responsibility for failure. The Journal of Special Education, 1974, 8, 175-178.

Chapman, J. W., & Boersma, F. J. Learning disabilities, locus of control, and mother attitudes. Journal of Educational Psychology, 1979, 71, 250-258.

Covington, M. V., & Beery, R. G. Self-worth and school learning. New York: Holt Rinehart & Winston, 1976.

Diener, C. I., & Dweck, C. S. An analysis of learned helplessness: Continuous changes in performance, strategy, and achievement cognitions following failure. Journal of Personality and Social Psychology, 1978, 36, 451-462.

DuCette, J., Wolk, S., & Friedman, S. Locus of control and creativity in black and white children. Journal of Social Psychology, 1972, 88, 297-298.

Dweck, C. S. The role of expectations and attributions in the alleviation of learned helplessness. Journal of Personality and Social Psychology, 1975, 31, 674-685.

Dweck, C. S. Children's interpretation of evaluative feedback: The effect of social cues on learned helplessness. Merrill-Palmer Quarterly, 1976, 22, 105-109.

Dweck, C. S., & Reppucci, N. D. Learned helplessness and reinforcement responsibility in children. Journal of Personality and Social Psychology, 1973, 25, 109-116.

Gilmor, T M. Locus of control as a mediator of adaptive behavior in childern and adolescents. Canadian Psychological Review, 1978, 19(1), 1-26.

Hill, C. L. Attributional profiels on the IAR and susceptibility to learned helplessness in learning disabled and nonlearning disabled boys (Doctoral dissertation, Indiana University, 1979). Dissertation Abstracts International, 1980, 40(8), 4490A. (University Microfilms No.8002865)

LaVoie, J. C., & Adams, G. R. A comparative test of locus of control measures and IQ as predictors of children's task performance. Omaha, Neb.: University of Nebraska, 1975. (ERIC Document Reproduction Service No. ED 118 248)

Lawrence, E. A., & Winschel, J. F. Locus of control: Implications for special education. Exceptional Children, 1975, 41, 483-490.

MacDonald, A. P., Jr. Internal-external locus of control In J. P. Robinson & P. R. Shaver (Eds.), Measures of social psychological attitudes (Rev. ed.). Ann Arbor, Mich.: Institute for Social Research, 1973.

McMahan, I. D. Relationships between causal attributions and expectancy of success. Journal of Personality and Social Psychology, 1973, 28, 108-115.

Nicholls, J. G. The development of the concepts of effort and ability, perception of academic attainment, and the understanding that difficult tasks require more ability. Child Development, 1978, 49, 800-814.

Palmer, D. J. An attributional perspective on labeling. Exceptional Children, 1983, 49, 423-429.

Rotter, J. B. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 1966, 80(1, Whole No. 609).

Seligman, M. E. P. Helplessness. San Francisco: W. H. Freeman & Co., 1975.

Shipe, D. Impulsivity and locus of control as predictors of achievement and adjustment in mildly retarded and borderline youth. American Journal of Mental Deficiency, 1971, 76, 12-22.

Tesiny, E. P., Lefkowitz, M. M., & Gordon, N. H. Childhood depression, locus of control, and school achievement. Journal of Educational Psychology, 1980, 72, 506-510.

Weiner, B. A theory of motivation for some classroom experiences. Journal of Educational Psychology, 1979, 71, 3-25.

Weisz, J. R. Perceived control and learned helplessness among mentally retarded and nonretarded children: A developmental analysis. Developmental Psychology, 1979, 15, 311-319.

VERBAL SELF-INSTRUCTION FOR THE MENTALLY RETARDED: THE MISSING LINK

ANNOTATED BIBLIOGRAPHY

Elizabeth Walters, Ph.D., Gloria Walters, M.B.S.,
& Sondra Bonnington, Ph.D.

Abramson, L. Y., Seligman, M. E. P. & Teasdale, J. D. Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, 1978, 87, 49-74.

A major reference in the area of learned helplessness. They discuss the depressive deficits of learned helplessness.

Blackman, S. & Goldstein, K. M. Cognitive styles and learning disabilities. Journal of Learning Disabilities. 1982, 15(2), 106-115.

Research is reviewed relating the cognitive style dimensions of field dependence and reflection-impulsivity to underachievement, process deficits and hyperactivity. The importance of modifying the learner's cognitive style is also examined.

Bolstad, O. D., & Johnson, S. M. Self-regulation in the modification of disruptive classroom behavior. Journal of Applied Behavior Analysis. 1972, 5, 443-454.

This study compared self-regulation and external regulation procedures. The results suggest that self-regulation procedures provide a practical, inexpensive, and powerful alternative in dealing with disruptive behavior in children.

Bricker, D., Ruder, K. F., & Vicent, L. An intervention strategy for language-deficient children. In N. G. Haring & R. L. Schiefelbusch (Eds.) Teaching Special Children. New York: McGraw-Hill, 1976.

A complete model for remediation is available in this chapter. Also of value are the various training strategies.

Brolin, D. E., & Kokaska, C. J. Career education for handicapped children and youth. Columbus, Ohio: Charles E. Merrill, 1979.

Brolin & Kokaska present a total approach to career development by presenting 22 competencies for home, school, and community, plus four stages of development (awareness, exploration, preparation, placement and follow-up) and include strategies and resources for teaching career skills.

Camp, B. W. & Bash, M. A. S. Think Aloud. Champaign, Ill: Research Press, 1981.

A program for teaching children to problem solve by teaching them to think out loud. It was field tested and revised several times before publishing in form. Program was designed for ages 6 - 8. However it could be adapted for use with children who have cognitive deficits in using verbal mediation techniques. Highly recommended.

Chapman, J. W., & Boersma. F. J. Learning disabilities, locus of control, and mother attitudes. Journal of Educational Psychology, 1979, 71, 250-258.

They discuss the role of parental attitudes and expectations in school learning in light of the LD child's tendency to assume responsibility for failure but not for success.

Covington, M. V., & Beery, R. G. Self-worth and school learning. New York: Holt Rinehart & Winston, 1976.

This is a good little book. They state that the lack of successful experiences and the scarcity of rewards in the classroom can lead some students to give up and stop trying.

El'konin, D. B. Some results of the study of the psychological development of preschool-age children. In M. Cole and I. Maltzman (Eds.) A handbook of contemporary soviet psychology. New York: Basic Books, 1969.

A further discussion of the development of speech and its role in mental development.

Gilmor, T. M. Locus of control as a mediator of adaptive behavior in children and adolescents. Canadian Psychological Review, 1978, 19(1), 1-26.

An excellent review paper focusing on the developmental aspects of LOC. Gilmor reviews 9 measures of LOC and their relationship to adaptive functioning and achievement behavior.

Gross, A. M., & Drabman, R. S. Teaching self-recording, self-evaluation, and self-reward to nonclinic children and adolescents. In P. Karoly & F. H. Kanfer (Eds.), Self-management and behavior change from theory to practice. New York: Pergamon Press. 1982.

They point out the practical factors involved in applying these methods.

Harris, K. R. Cognitive-behavior modification: Application with exceptional students. Focus on Exceptional Children, 1982, 15(2), 1-16.

Trends in cognitive behavior modification are noted and the research on self-instructional training and problem-solving training is reviewed.

Karoly, P. & Kanfer, F. (Eds.). Self management and behavior change from theory to practice. New York: Pergamon Press, 1982.

This up-to-date book is readable and yet it contains enough material to help anyone just starting in cognitive self-instruction to know what it is and how to do it. Highly recommended!

Keogh, B. K. & Glover, A. T. The generality and durability of cognitive training effects. Exceptional Education Quarterly/Cognitive Strategies. 1980, 75-81.

Reviews techniques and results of many studies. Reports that overt self-instruction can interfere with performance in the older child. However overt self-instruction may continue to facilitate the acquisition of new behaviors.

Kirk. S. A., McCarthy, J. J., & Kirk, W. D. Illinois Test of Psycholinguistic Abilities (Rev. ed.). Urbana: University of Illinois Press, 1968.

This test was cited in the text of the paper. The test must be administered by a trained examiner.

Kneedler, R. D. The use of cognitive training to change social behaviors. Exceptional Education Quarterly/ Cognitive Strategies. 1980, 65-73.

Describes several studies examining self-evaluation/ self-instruction versus problem solving.

Litrownik, A. J. Special considerations in the self-management training of the developmentally disabled. In P. Karoly & F. H. Kanfer (Eds.), Self-management and behavior change from theory to practice. New York: Pergamon Press, 1982.

He offers specific suggestions for designing self-management training programs and describes successful programs.

Luria, A. R. The role of speech in the regulation of normal and abnormal behavior. New York: Liveright, 1961.

A discussion of the three-stage theory of the development of verbal control of motor behavior.

Luria, A. R. The mentally retarded child. Oxford: Pergamon Press, 1963.

This work elaborates upon the general disruption of the language system of the mentally retarded child.

Luria, A. R. Speech development and the formation of mental processes. In M. Cole & I. Maltzman (Eds.) A handbook of contemporary soviet psychology. New York: Basic Books, 1969.

Research of numerous soviet psychologists is presented in this article.

McLaughlin, T. F. Self-control in the classroom. Review of Educational Research. 1976, 46(4), 631-663.

Reviews and uses self-reinforcement procedures. Excellent source for those wishing to initiate such methods systematically.

Meichenbaum, D. H. & Goodman, J. Training impulsive children to talk to themselves: A means of developing self-control. Journal of Abnormal Psychology, 1971, 77, 115-126.

Using private speech for orienting, organizing, regulating, and self-rewarding functions.

Meichenbaum, D. H. & Goodman, J. Reflection-impulsivity and verbal control of motor behavior. Child Development, 1969, 40, 785-797.

The relationship between reflection-impulsivity was examined with 30 kindergarten children. It demonstrated that impulsive children's self-verbalizations are less effective in controlling their motor behavior than those of reflective children.

Meisgeier, C. A social/behavioral program for the adolescent student with serious learning problems. Focus on Exceptional Children, 1981, 13(9), 1-13.

A highly structured program which includes daily measurement and charting plus individual and group activities to promote social and emotional growth.

Rotundo, N. & Johnson, E. G. Verbal control of motor behavior: A reexamination of Luria's theory. Journal of Mental Deficiency, 1981, 25, 281-190.

A study supporting Luria's position that the mentally retarded are arrested at the asemantic stage of development.

Silverman, R., Zigmond, N., & Sansone, J. Teaching coping skills to adolescents with learning problems. Focus on Exceptional Children, 1981, 13(6), 1-20.

They describe a curriculum which is divided into three strands: behavior control, teacher-pleasing behaviors, & study skills; linking special education content to mainstream requirements.

Stone, A. K. & Derwatka, T. S. Reducing syntactic errors in written responses of a retarded adolescent through oral patterning. Education and Training of the Mentally Retarded, 1982, 2, 71-74.

Report of a successful study which was designed to demonstrate a self-patterning, self-correction paradigm for transfer from spoken to written expression. The method, utilizing a language master, seems easily adaptable to the classroom.

Vygotsky, L. S. Thought and language. New York: Wiley, 1962.

The development of language and thought in the young child in terms of progression through stages.

Weiner, B. A theory of motivation for some classroom experiences. Journal of Educational Psychology, 1979, 71, 3-25.

The main reference in attribution theory. He discusses the psychological consequences of perceived causality.

Wong, B. Activating the inactive learner: Use of questions/ prompts to enhance comprehension and retention of implied information in learning disabled children. Learning Disabilities Quarterly, 1980, 3, 29-37.

This article reports the findings of two studies involving comprehension and retention of implied information in learning disabled and normally achieving second and sixth graders. Results were interpreted to support conceptualization of the learning disabled child as an inactive learner.

Zetlin, A. G. & Gallimore, R. A cognitive skills training program for moderately retarded learners. Education and Training of the Mentally Retarded, 1980, 121-131.

Describes in detail a process for increasing listening comprehension of TMR students using questioning strategies. Authors argue that embedded cognitive training is likely to be a more satisfactory solution in the long run than programs that seek to identify and train separate skills in isolation.